REMARKS

Claims 1-3, 5-51 are pending in this application. Claims 1, 8, 12, 37, 38, 39, 40, 41, 43, 44, 46, 47 and 48 are independent. Claims 46-51 are new. Claim 4 has been canceled.

Claim Rejection – 35 USC 102

Claims 12-18, 26, 30, 32, 33, 34, 36-39 and 41 have been rejected as being anticipated by Macdonald et al. (U.S. Patent 5,835,128, hereinafter Macdonald). Applicants respectfully traverse this rejection.

Claim 12 is directed to a millimeter wave receiver for performing millimeter wave radio transmission indoors (e.g., millimeter wave receiver 200 shown in Figure 1B) comprising a millimeter wave receiving circuit receiving millimeter waves obtained by up-converting a plurality of broadcasting waves (e.g., millimeter wave antenna 27), a broadcasting wave demodulation circuit down-converting the millimeter waves to the frequency band of the broadcasting waves (e.g., down-converter 29), a connection unit (e.g., connector 38) connectable with a connector (e.g., connector 40) provided on an electronic apparatus (e.g., electronic apparatus 300) having a function of receiving broadcasting, and a power receptor circuit (e.g., DC power receptor 33) receiving driving power of said millimeter wave receiver through said connection unit. Thus, the claimed invention's connection unit receives broadcasting and driving

power. The connection unit is connectable with a connector provided on an electronic apparatus.

The Office Action alleges that Macdonald's insertion port 114, e.g., a Diplexer, teaches the claimed connection unit. With respect to the claimed power receptor circuit, the Office Action states that, "power receptor circuit receiving driving power of the 60 GHz signal through the connection unit." The Office Action is not explicit as to what constitutes the claimed connector provided on an electronic apparatus and the claimed power receptor circuit.

Macdonald's diplexer 114 appears to provide down-converted signals to an IRD 110 and provides a connection to a UHF/VHF antenna (column 9, lines 28-32). Applicants disagree, however, that Macdonald's 60 GHz signal constitutes driving power of the receiver. Thus, Applicants submit that Macdonald fails to teach or suggest at least the claimed power receptor circuit receiving driving power of the millimeter wave receiver. Accordingly, Applicants submit that Macdonald fails to teach each and every claimed element of claim 12.

Claim 37 is directed to an electronic apparatus (e.g., Figure 1B, electronic apparatus 300) capable of utilizing an output signal from a millimeter wave receiver comprising a connector (e.g., connector 40) connected with the millimeter wave receiver, a memory circuit (e.g., memory 44) storing information as to whether or not to utilize said output signal from said millimeter wave receiver in correspondence to a channel subjected to selection for receiving, and a power supply circuit

(e.g., DC power supply 43) supplying driving power of said millimeter wave receiver through the connector, wherein the power supply circuit supplies the driving power through the connector when a channel utilizing the output signal from the millimeter wave receiver is selected on the basis of the information stored in the memory circuit.

The Office Action alleges that Macdonald's receiver unit in Figure 3 teaches an electronic apparatus, Macdonald's insertion port 114 teaches the claimed connector, and that the claimed memory circuit and power supply circuit are inherent to the IRD (integrated receiver and detector)/set-top box 110.

To the contrary, Applicants submit that the claimed memory circuit and power supply circuit are not inherent in Macdonald.

> To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the alleged inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). Once a reference teaching a product appearing to be substantially identical is made the basis of a rejection, and the examiner presents evidence or reasoning tending to show inherency, the burden shifts to the applicant to show an unobvious difference. "The PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. Whether the rejection is based on 'inherency' under 35 U.S.C. 102, on '*prima facie* obviousness' under 35 U.S.C. 103, jointly or alternatively,

the burden of proof is the same." *In re Fitzgerald*, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980).

Applicants submit that one of ordinary skill would not recognize the IRD/set-top box 110 as including a power supply circuit which supplies driving power through the connector for the millimeter wave receiver. Macdonald discloses that, "as will be evident to one of ordinary skill in the art, the IRD 110 demodulates the received signal, strips a particular television signal from the provided band of television signals according to the channel selected by a user and delivers this signal to a television for use in generating a display on a television screen." In other words, it appears that the IRD/set-top box 110 is capable of obtaining user selection of a channel in order to strip a particular television channel from the band of signals received from the Diplexer 114. Unlike Macdonald however, the present invention comprises a power supply circuit supplying driving power of the millimeter wave receiver through the connector. Accordingly, Applicant submits that Macdonald fails to teach or suggest each and every element of claim 37.

Claim 38 is directed to an electronic apparatus (e.g., Figure 1B, electronic apparatus 300) capable of utilizing an output signal from a millimeter wave receiver comprising a connector (e.g., connector 40) connected with the millimeter wave receiver and a control signal transmission circuit (e.g., control signal transmitter 42) transmitting a control signal indicating information provided in said electronic apparatus to the connector.

The Office Action alleges that Macdonald's receiver unit in Figure 3 constitutes the claimed electronic apparatus, Macdonald's insertion port 114 constitutes the claimed connector, and the claimed control signal transmission circuit is inherent in the IRD (integrated receiver and detector)/set-top box 110. Applicants disagree that Macdonald inherently teaches a control signal sent to the insertion port 114 from the integrated receiver and detector IRD/set-top box 110.

Macdonald discloses the IRD/set-top box provided with a band of television signals from the Diplexer 114. The IRD/set-top box 110 strips a particular television signal based on a channel selected by a user from the band of signals. Based on the plain teachings of Macdonald, Applicants submit that one of ordinary skill would not recognize, for example, transmission of a control signal by the IRD/set-top box to the Diplexer 114. Accordingly, Applicants submit that Macdonald fails to teach or suggest each and every claimed element of claim 38. This same argument applies as well to claim 39, which recites the same structure as claim 39, as well as a memory circuit.

Claim 41 is directed to a repeater (e.g., Figure 14a, repeater 500) connected to an antenna receiving broadcasting information for making a relay to a terminal comprising a broadcasting wave input circuit (e.g., broadcasting signal input 16), a frequency arranging circuit (e.g., frequency arranger 17), a power supply circuit (e.g., DC power supply 20), a connection unit (e.g., connector 58) for connection with the

terminal, and a power receptor circuit (e.g., DC power receptor 56) receiving driving power of the repeater through the connection unit.

The Office Action alleges that Macdonald's wireless rebroadcasting unit, Figure 2, teaches the claimed repeater. However, the Office Action alleges that the claimed power receptor circuit is inherent to Antenna 14. To the contrary, the claimed repeater comprises a power receptor circuit receiving driving power through the connecting unit. In other words, unlike Macdonald, the claimed power receptor circuit is part of the repeater. Thus, Applicants submit that Macdonald fails to teach or suggest at least the claimed power receptor circuit. Accordingly, Applicants submit that Macdonald fails to teach or suggest each and every claimed element of claim 41.

Accordingly, Applicants respectfully request that the rejection be withdrawn.

Claim Rejection – 35 USC 103; Macdonald, Parlato

Claims 19-25 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Macdonald in view of Parlato (U.S. Patent 5,820,464). Applicants respectfully traverse this rejection.

The Office Action relies on Macdonald for teaching the claimed invention except for the claimed connection unit that is capable of at least one of rotation and bending. Instead the Office Action relies on Parlato for making up for the deficiency.

Macdonald was relied on for teaching the claimed connection unit recited in claim 12. Specifically, the Office Action alleged that Macdonald's Diplexer constitutes the claimed connection unit. Parlato teaches a flexible shaft for transmitting rotary motion, but does not appear to disclose a Diplexer capable of at least one of rotation and bending. Thus, Applicants disagree that one of ordinary skill would look to the teachings of Parlato in modifying Macdonald to arrive at the structure of the claimed invention. Therefore, Applicants submit that at least for this additional reason, the rejection fails to establish *prima facie* obviousness.

Applicants respectfully request that the rejection be withdrawn.

Claim Rejection – 35 USC 103; Macdonald, Tanishima

Claims 1-11, 40, and 42-45 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Macdonald et al. in view of Tanishima (U.S. Patent 5,953,045). Applicants respectfully traverse this rejection.

Claim 1 has been amended to incorporate the subject matter from claim 4. In particular, claim 1 recites, "a frequency arranging circuit temporarily converting a radio frequency band of terrestrial waves to a higher intermediate frequency band, thereby changing the frequency arrangement of said broadcasting signals."

The Office Action alleges that the summer 73, amplifier 86, and tripler 88 constitutes a frequency arranging circuit and together changes the frequency arrangement of the broadcasting signals to a 60 GHz signal. The Office Action also alleges that summer 73, amplifier 86, and

tripler 88 constitute the claimed broadcasting wave modulation circuit. Applicant submits that the claimed frequency arranging circuit changes the frequency arrangement of signals, which based on the present disclosure is not the same as up-conversion of signals.

Applicants submit that Macdonald appears to teach circuitry for up-converting broadcasting signals, but does not appear to teach or suggest the claimed frequency arranging circuit. Tanishima also does not appear to teach the claimed frequency arranging circuit. Thus, Applicants submit that Macdonald and Tanishima, either alone or in combination, fail to teach each and every element of claim 1. The same argument, applies as well to claims dependent on claim 1.

Claim 40 is directed to an electronic apparatus having a function of receiving television broadcasting (e.g., Figure 15, electronic apparatus 310), that among other things, includes a broadcasting wave demodulation circuit down-converting the millimeter waves (e.g., down converter 29), and an inverse frequency arranger (e.g., inverse frequency arranger 30) changing the frequency arrangement of output signals of the broadcasting wave demodulation circuit.

The Office Action alleges that Macdonald's Low Noise Block 108 teaches the claimed broadcasting wave demodulation circuit, and admits that Macdonald fails to teach an inverse frequency arranger. Instead, the Office Action alleges that Tanishima makes up for the deficiency in Macdonald. The Office Action appears to allege that an inverse frequency arranger is inherent to the VCSRRec that changes the frequency

arrangement of the output signals of the broadcasting demodulating circuit.

Tanishima discloses a radio reception apparatus (Figure 5) including a frequency converter (Down Converter 51f-2), 100-MHz band-pass filter (51f-3), and a 100-MHz intermediate frequency amplifier (51f-4).

Applicants submit that Tanishima appears to teach adjustments to the 100 MHz signal output from the frequency converter, but does not appear to teach frequency arrangement of output signals of the frequency converter. Thus, Applicants submit that Macdonald and Tanishima, either alone or in combination, fail to teach each and every element of claim 40.

Similar arguments as in the above for claim 12 apply as well to claims 43 and 44.

Accordingly, Applicants respectfully request that the rejection be withdrawn.

Claim Rejection – 35 USC 103; Macdonald, Tanishima

Claims 27-29, 31, and 35 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Macdonald et al. in view of Tanishima (U.S. Patent 5,953,045). For at least the same reasons as above for claim 12, Applicants submit that claims 27-29, 31, and 35 are patentable as well.

New Claims

Claims 46-51 have been added. Claims 46-49 further distinguish the invention of claim 1 and add the limitation that an electronic apparatus functions as a TV. Claims 50 and 51 further define the inverse frequency arranging circuit, from that in claims 12 and 40, respectively. Applicants submit that these additional claim limitations further distinguish the claimed invention over the prior art of record.

CONCLUSION

All objections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance and such allowance is respectfully solicited. Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert W. Downs, Reg. No. 48,222, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1. 17; particularly, extension of time fees.

Respectfully submitted,

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